

IN THE CLAIMS:

Please amend claims 33-37, 41-44, 46-49, and 51-60 without prejudice or disclaimer, resulting in the following set of claims:

33. (currently amended) An information processing apparatus for displaying on a display device an image on which a motion of an operation article which is held and given the motion by an operator is indicated, the operation article defining a reflecting surface is reflected, said information processing apparatus comprising:

an imaging unit operable to receive light reflected from the operation article  
~~photograph the operation article which has a reflecting surface to generate a first signal, the imaging unit including a plurality of pixels arranged along a first dimension, and a plurality of pixels arranged along a dimension perpendicular to the first dimension;~~

a state information computing unit operable to compute state information ~~of the reflecting surface on the basis of the first signal generated~~ an image obtained by said imaging unit and generate a first trigger on the basis of the state information; and

an image display processing unit operable to display on the display device a first object representing a movement locus of the operation article said image processing unit operable to display the first object at a time determined by in response to the first trigger.

34. (currently amended) The information processing apparatus as claimed in claim 33, wherein the first object representing the movement locus comprises a beltlike object, said image display processing unit represents the movement locus of the operation article by displaying the beltlike object on the display device so that a width of the beltlike object varies for each prescribed unit which includes a at least one frame, and

the width of the beltlike object increases as the frame is updated, and thereafter decreases as the frame is updated.

35. (currently amended) The information processing apparatus as claimed in claim 34, wherein said image display processing unit displays a second object on the display device,

    said state information computing unit generates a second trigger responsive to when positional relation between the second object and the first object representing the movement locus of the operation article meeting meets a predetermined condition, and

    said image display processing unit displays a predetermined effect on the display device in response to the second trigger.

36. (currently amended) The information processing apparatus as claimed in claim 33, wherein said state information computing unit computes positional information as the state information of the reflecting surface responsive to after speed information as the state information of the reflecting surface exceeding exceeds a predetermined first threshold value until the speed information becomes less than a predetermined second threshold value, or computes the positional information of the reflecting surface after the speed information of the reflecting surface exceeds the predetermined first threshold value but before the reflecting surface deviates beyond a photographing range of said imaging unit,

    said state information computing unit determines, responsive to when the positional information of the reflecting surface being is obtained for three or more times, appearance of the first object representing the movement locus of the operation article on the basis of the first positional information of the reflecting surface and the last positional information of the reflecting surface, and

    said state information computing unit generates, responsive to when the positional information of the reflecting surface being is obtained for three or more times, the first trigger on the basis of the state information.

37. (currently amended) The information processing apparatus as claimed in claim 33, wherein the first object representing the movement locus comprises a beltlike object, said image display processing unit represents the movement locus of the operation article by displaying the beltlike object on the display device so that a width and a length of the beltlike object vary for each prescribed unit which includes ~~a~~ at least one frame, and the beltlike object increases in length as the frame is updated, and responsive to when the length becoming becomes a predetermined length, the width of the beltlike object decreases as the frame is updated.

38. (previously presented) The information processing apparatus as claimed in claim 33 further comprising a correction information acquisition unit operable to acquire correction information for correcting positional information as the state information of the reflecting surface, and said state information computing unit computes corrected positional information by using the correction information.

39. (previously presented) The information processing apparatus as claimed in claim 33, wherein the first object includes a plurality of objects.

40. (previously presented) The information processing apparatus as claimed in claim 33, wherein said image display processing unit displays the first object representing the movement locus of the operation article on the display device after a lapse of a predetermined time from a generation of the first trigger.

41. (currently amended) An information processing apparatus for displaying an image on a display device on the basis of a result of detecting an operation article, the operation article defining a plurality of reflecting surfaces, which is grasped and given a motion by an operator, said information processing apparatus comprising:

an imaging unit operable to receive light reflected from the operation article to generate

a first signal, the imaging unit including a plurality of pixels arranged along a first dimension, and a plurality of pixels arranged along a dimension perpendicular to the first dimension photograph the operation article which has a plurality of reflecting surfaces;

a state information computing unit operable to compute state information of the operation article reflecting surface on the basis of the first signal generated an image obtained by said imaging unit and determine which of the plurality of reflecting surfaces is photographed on the basis of the state information and generate a first trigger on the basis of the state information; and

an image display processing unit operable to display an image a different image on the display device , the image depending on the determined reflecting surface , said image display processing unit operable to display the image at a time determined by the first trigger.

42. (currently amended) The information processing apparatus as claimed in claim 41, wherein the state information includes any one of area information, profile information, or and ratio information indicative of a profile, or a combination thereof about the reflecting surface.

43. (currently amended) An information processing apparatus for displaying an image on a display device on the basis of a result of detecting an operation article , the operation article defining a plurality of reflecting surfaces, which is grasped and given a motion by an operator, said information processing apparatus comprising:

an imaging unit operable to receive light reflected from the operation article to generate a first signal, the imaging unit including a plurality of pixels arranged along a first dimension, and a plurality of pixels arranged along a dimension perpendicular to the first dimension photograph the operation article which has a plurality of reflecting surfaces;

~~a state information computing unit operable to compute state information of each of the reflecting surfaces on the basis of an image by said imaging unit; and~~

a state information computing unit operable to compute state information of the operation article on the basis of the first signal generated by said imaging unit and generate a first trigger on the basis of the state information; and

an image display processing unit operable to display an image on the display device in accordance with the state information of the plurality of reflecting surfaces , said image display processing unit operable to display the image at a time determined by the first trigger.

44. (currently amended) An information processing apparatus for displaying on a display device an image on which a motion of an operation article is indicated, the operation article defining a reflecting surface, which is held and given the motion by an operator ~~is reflected~~ , said information processing apparatus comprising:

an imaging unit operable to receive light reflected from the operation article photograph the operation article which has a reflecting surface to generate a first signal, the imaging unit including a plurality of pixels arranged along a first dimension, and a plurality of pixels arranged along a dimension perpendicular to the first dimension;

~~an area information computing unit operable to compute area information of the reflecting surface on the basis of an image obtained by said imaging unit, and generate a trigger when the area information exceeds a predetermined threshold value; and~~

an area information computing unit operable to compute area information of the operation article on the basis of the first signal generated by said imaging unit, and generate a trigger responsive to the area information exceeding a predetermined threshold value; and

an image display processing unit operable to display a predetermined object on the display device in response to the trigger , said image display processing unit operable to display the predetermined object at a time determined by the trigger.

45. (previously presented) The information processing apparatus as claimed in claim 44, wherein said image display processing unit moves the predetermined object in response to positional information of the reflecting surface, and  
a color of the predetermined object is transparent or translucent.

46. (currently amended) An information processing apparatus for displaying on a display device an image on which a motion of an operation article is indicated, the operation article defining a reflecting surface, which is held and given the motion by an operator is reflected , said information processing apparatus comprising:

an imaging unit operable to receive light reflected from the operation article photograph the operation article which has a reflecting surface to generate a first signal, the imaging unit including a plurality of pixels arranged along a first dimension, and a plurality of pixels arranged along a dimension perpendicular to the first dimension;  
a state information computing unit operable to compute state information of the reflecting surface on the basis of an image obtained by said imaging unit, and generate a trigger on the basis of the state information; and  
a state information computing unit operable to compute state information of the operation article on the basis of the first signal generated by said imaging unit and generate a first trigger on the basis of the state information; and  
an image display processing unit operable to display a character string on the display device, and wherein  
said image display processing unit displays a character string differing from the character string on the display device in response to the trigger at a time determined by the first trigger.

47. (currently amended) An information processing apparatus for displaying on a display device an image on which a motion of an operation article is indicated, the operation article defining a reflecting surface, which is held and given the motion by an operator is reflected , said information processing apparatus comprising:

an imaging unit operable to receive light reflected from the operation article photograph the operation article which has a reflecting surface to generate a first signal, the imaging unit including a plurality of pixels arranged along a first dimension, and a plurality of pixels arranged along a dimension perpendicular to the first dimension;  
a state information computing unit operable to compute state information of the reflecting surface on the basis of an image obtained by said imaging unit, and generate a trigger on the basis of the state information; and  
a state information computing unit operable to compute state information of the operation article on the basis of the first signal generated by said imaging unit and generate a first trigger on the basis of the state information; and  
an image display processing unit updates a background image in response to the trigger  
an image display processing unit operable to update a background image at a time determined by the first trigger.

48. (currently amended) An information processing apparatus for displaying on a display device an image on which a motion of an operation article is indicated, the operation article defining a reflecting surface, which is held and given the motion by an operator is reflected , said information processing apparatus comprising:

an imaging unit operable to receive light reflected from the operation article photograph the operation article which has a reflecting surface to generate a first signal, the imaging unit including a plurality of pixels arranged along a first dimension, and a plurality of pixels arranged along a dimension perpendicular to the first dimension;

a positional information computing unit operable to compute positional information of the reflecting surface on the basis of the first signal generated ~~an image obtained by said imaging unit; and~~  
an image display processing unit operable to display a cursor on the display device and move ~~moves~~ the cursor in accordance with the positional information of the reflecting surface.

49. (currently amended) The information processing apparatus as claimed in claim 48, wherein, responsive to ~~when~~ the cursor being is displayed so as to be overlapped on a predetermined object, said image display processing unit displays an image associated with the predetermined object on the display device.

50. (previously presented) The information processing apparatus as claimed in claim 48, wherein said image display processing unit displays a character selected by the cursor on the display device.

51. (currently amended) An information processing apparatus for displaying on a display device an image on which a motion of an operation article is indicated, the operation article defining a reflecting surface, which is held and given the motion by an operator is reflected, said information processing apparatus comprising:

an imaging unit operable to receive light reflected from the operation article photograph the operation article which has a reflecting surface to generate a first signal, the imaging unit including a plurality of pixels arranged along a first dimension, and a plurality of pixels arranged along a dimension perpendicular to the first dimension;  
a state information computing unit operable to compute state information of the reflecting surface on the basis of an image obtained by said imaging unit;  
and  
a state information computing unit operable to compute state information of the operation article on the basis of the first signal generated by said imaging unit and generate a first trigger on the basis of the state information; and

a process fixing unit operable to fix execution of a predetermined process on the basis of the state information of the reflecting surface at a time determined by the first trigger.

52. (currently amended) An information processing apparatus for displaying on a display device an image on which a motion of an operation article is indicated, the operation article defining a reflecting surface, which is held and given the motion by an operator is reflected , said information processing apparatus comprising:

an imaging unit operable to receive light reflected from the operation article photograph the operation article which has a reflecting surface to generate a first signal, the imaging unit including a plurality of pixels arranged along a first dimension, and a plurality of pixels arranged along a dimension perpendicular to the first dimension;

~~a state information computing unit operable to compute state information of the reflecting surface on the basis of an image obtained by said imaging unit; and~~

a state information computing unit operable to compute state information of the operation article on the basis of the first signal generated by said imaging unit; and

an image display processing unit operable to display a predetermined object on the display device responsive to when the state information that is obtained successively meeting meets a predetermined condition.

53. (currently amended) An information processing apparatus for displaying an image on a display device on the basis of a result of detecting an operation article ,the operation article defining a reflecting surface, which is grasped and given a motion by an operator, said information processing apparatus comprising:

an imaging unit operable to receive light reflected from the operation article photograph the operation article which has a reflecting surface to generate a first signal, the imaging unit including a plurality of pixels arranged along

a first dimension, and a plurality of pixels arranged along a dimension perpendicular to the first dimension;

a state information computing unit operable to compute state information of the reflecting surface on the basis of an image obtained by said imaging unit; and

a state information computing unit operable to compute state information of the operation article on the basis of the first signal generated by said imaging unit and generate a first trigger on the basis of the state information; and

an image display processing unit operable to display on the display device a guide which instructs an operation direction and operation timing of the operation article and display an image on the display device in accordance with the state information

an image display processing unit operable to display on the display device a guide which instructs an operation direction and operation timing of the operation article and display an image on the display device in accordance with the state information, at a time determined by the first trigger.

54. (currently amended) The information processing apparatus as claimed in claim 33, wherein the state information includes ~~one or a combination of two or more being selected from speed information, moving direction information, moving distance information, velocity vector information, acceleration information, movement locus information, area information, or and positional information.~~

55. (currently amended) The information processing apparatus as claimed in claim 43, wherein the state information includes ~~one or a combination of two or more being selected from speed information, moving direction information, moving distance information, velocity vector information, acceleration information, movement locus information, area information, number information, or and positional information.~~

56. (currently amended) The information processing apparatus as claimed in claim 46, wherein the state information includes ~~one or a combination of two or more being selected from~~ speed information, moving direction information, moving distance information, velocity vector information, acceleration information, movement locus information, area information, or and positional information.

57. (currently amended) The information processing apparatus as claimed in claim 47, wherein the state information includes ~~one or a combination of two or more being selected from~~ speed information, moving direction information, moving distance information, velocity vector information, acceleration information, movement locus information, area information, or and positional information.

58. (currently amended) The information processing apparatus as claimed in claim 51, wherein the state information includes ~~one or a combination of two or more being selected from~~ speed information, moving direction information, moving distance information, velocity vector information, acceleration information, movement locus information, area information, or and positional information.

59. (currently amended) The information processing apparatus as claimed in claim 52, wherein the state information includes ~~one or a combination of two or more being selected from~~ speed information, moving direction information, moving distance information, velocity vector information, acceleration information, movement locus information, area information, or and positional information.

60. (currently amended) The information processing apparatus as claimed in claim 53, wherein the state information includes ~~one or a combination of two or more being selected from~~ speed information, moving direction information, moving distance information, velocity vector information, acceleration information, movement locus information, area information, or and positional information.

61. (previously presented) An operation article which is operated by the operator of the information processing apparatus as set forth in claim 41, wherein said operation article is provided with a plurality of reflecting surfaces.

62. (previously presented) An operation article which is operated by the operator of the information processing apparatus as set forth in claim 43, wherein said operation article is provided with a plurality of reflecting surfaces.